

Project Final Report: Radwaste Device Design Brief

Define the problem:

(About 3 sentences)

Criteria:

Constraints:

Re-Sketch your brainstormed device:

Copy the sketches of two other individuals in your group:

Drawings:

(Materials, Dimensions, 2 Views, Explanatory Notes)

Procedure:

Group Leader:

Other Members:

Model Name:

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Engineering Journal:

Looking for paragraphs on Problem, Rules, Brainstorming, Notes on “why you picked the group design”, “Notes on “changes in design”, Notes on “your Test Results & Evaluation”.

<i>Assessment Instrument - Engineering Design Process Rubric</i>			
Category	Below Target	At Target	Above Target
Defining the Problem	Rephrases the problem with limited clarity.	Rephrases the problem clearly.	Rephrases the problem clearly and precisely.
Brainstorming a Solution	Contributes few or implausible ideas.	Contributes a plausible idea.	Contributes multiple plausible ideas.
Generating Ideas	Contributes ideas. Produces incomplete sketches. Does not present a concept.	Contributes one plausible idea. Produces marginally accurate pictorial and orthographic sketches of design concepts.	Contributes multiple plausible ideas. Produces accurate pictorial and orthographic sketches of design concepts.
Identifying Criteria	Does not restate the criteria clearly and fails to identify constraints.	Restates the criteria clearly and identifies several constraints.	Restates the criteria clearly and precisely and identifies many constraints.
Exploring Possibilities	Inadequately analyzes the pluses and minuses of a variety of possible solutions.	Satisfactorily analyzes the pluses and minuses of a variety of possible solutions.	Thoroughly analyzes the pluses and minuses of a variety of possible solutions.
Selecting an Approach	Selection of solution is not based on consideration of criteria and constraints.	Selects a promising solution based on criteria and constraints.	Selects a promising solution based on a thorough analysis of criteria and constraints.
Making a Model or Prototype	Prototype meets the task criteria to a limited extent.	Prototype meets the task criteria.	Prototype meets the task criteria in insightful ways.
Testing and evaluating the Design	Testing and evaluation processes are inadequate.	Testing and evaluation processes are adequate for refining the problem solution.	Testing processes are innovative.
Refining the Design	Refinement based on testing and evaluation is not evident.	Refinements made based on testing and evaluation results.	Significant improvement in the design is made based on prototype testing and evaluation.

<i>Group Work Rubric</i>			
Category	Below Target	At Target	Above Target
Contributions	Seldom cooperative. Does little work and rarely offers useful ideas.	Cooperative. Works at assignments. Usually offers useful ideas.	Always willing to help and do more. Does more than required. Routinely offers useful ideas.
Cooperation	Rarely listens to, shares with, or supports the efforts of others. Often is not a good team member.	Usually listens to, shares with, and supports the efforts of others. Does not cause problems in the group.	Always listens to, shares with, and supports the efforts of others. Tries to keep people working together.
Focus on the Task	Does not focus on the task and what needs to be done. Lets others do the work.	Focuses on the task and what needs to be done most of the time.	Almost always focused on the task and what needs to be done. Self-directed.

Group Members:

ContributionCooperationFocus

ContributionCooperationFocus

ContributionCooperationFocus

ContributionCooperationFocus

Checklist

Lab Sheet☐

Video of Lab☐

Picture of Device☐

Website☐